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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,263	09/10/2003	Koichi Tsutsumi	0505-1244P	4004

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EXAMINER

MCMAHON, MARGUERITE J

ART UNIT PAPER NUMBER

3747

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/658,263

Applicant(s)

TSUTSUMI ET AL.

Examiner

Marguerite J. McMahon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3,8,9,13,14,16 and 17 is/are allowed.
- 6) ☒ Claim(s) 1,4-7,10-12,15 and 18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/10/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 4-11, 15, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In line 2 of claim 4 "shaft" should be deleted. The reason that the word "shaft" should be deleted is that in conventional language, the rocker arm shaft is the shaft upon which the rocker arm pivots. The rocker arm itself, rather than the rocker arm shaft is the element which includes the pair of forked ends, etc. to which claim 4 is drawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Thompson (3,400,696). Thompson shows everything except specifically stating that the engine is a four cycle engine, and that it includes both intake and exhaust valves. The examiner believes that it would be obvious, if not inherent, that the engine would be a four cycle engine, since this is the most common and conventional engine, and that it would include both intake and exhaust valves, in order to function. Note further that it would be obvious if not inherent that the cylinder head would be joined to the engine block at that parting plane shown in

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Figure 1, which is the bottom of the cylinder head 10, in order for the device to function as an engine.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Allowable Subject Matter

Claims 2, 3, 8, 9, 13, 14, 16, and 17 are allowed.

Claims 4-7, 10, 11, 15, and 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 12/20/04 have been fully considered but they are not persuasive.

Applicant argues that the 112 rejection of claim 4 is improper and should be withdrawn. As explained above, the reason that the word "shaft" should be deleted is that in conventional language, the rocker arm shaft is the shaft upon which the rocker arm pivots. The rocker arm itself, rather than the rocker arm shaft is the element which includes the pair of forked ends, etc. to which claim 4 is drawn. Thus, the language currently employed is misleading and confusing.

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Applicant further argues that Thompson (3,400,696) fails to show a joint between the cylinder head and the cylinder block that extends diagonally with respect to either the longitudinal axis of the intake or exhaust valve. Technically, applicant is correct; the engine block is not disclosed in the Figures. However, the bottom surface of the cylinder head 10 is shown, and it would be inherent or at the very least obvious that the engine block would be joined to the cylinder head 10 at the bottom surface of the cylinder head. This is necessary for basic engine function. Applicant is referred to the references cited as prior art for showings of this very basic engine configuration: Figure 1 of 6,453,861; Figure 2 of 5,148,781; and Figure 1 of 6,510,837 all show the engine block joined to the cylinder head at the bottom plane of the cylinder head, and incidentally all of them show this joint being diagonal with respect to the longitudinal axis of intake or exhaust valves.

Finally, Applicant argues rather ingeniously that Thompson (3,400,696) fails to show a joint between the cylinder and the cylinder head cover, saying that these two elements are labeled as the upper and lower halves of the engine head 10 as described by Thompson. The examiner maintains that the terminology utilized by Thompson may be different than the terminology utilized by applicant, but the two elements in question function identically as the cylinder head and cylinder head cover shown by Applicant.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marguerite J. McMahon whose telephone number is 703-308-1956. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yuen Henry can be reached on 703-308-1946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MARGUERITE MCMAHON
PRIMARY EXAMINER